

WHAT IS CLAIMED IS:

1. A relation chart-creating program for creating
a relation chart representative of relations between a
5 plurality of documents, the program causing a computer
to:

analyze contents of each of the documents and
extract feature elements including time information
therefrom;

10 calculate a degree of relevancy between each
document pair extracted from the documents, based on the
extracted feature elements;

lay out objects indicative of the documents, along
a time axis, based on the time information, and generate
15 association lines for connecting between the objects of
each document pair, depending on the calculated degree
of relevancy; and

display the relation chart composed of the objects
and the association lines.

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2. The relation chart-creating program according
to claim 1, wherein when the association lines are
generated, the association lines between predetermined
ones of the document pairs are discarded for thinning-
25 out based on the degree of relevancy of the document
pair without citation relationship.

3. The relation chart-creating program according to claim 1, wherein when the association lines are generated, ones of the association lines between ones of the document pairs having the citation relationship are displayed in a form of display different from a form of display in which the others of the association lines are displayed.

4. The relation chart-creating program according to claim 1, wherein when the objects indicative of the documents are laid out, at least ones of the objects indicative of the document pairs having relevancy are arranged along the time axis in an order based on the time information.

5. The relation chart-creating program according to claim 1, wherein when the objects indicative of the documents are laid out, the objects indicative of the documents are arranged along the time axis in an order based on the time information.

6. The relation chart-creating program according to claim 1, wherein when the objects indicative of the documents are laid out, the time axis is represented in basic units each corresponding to a predetermined time period, and the order along the time axis is preserved between objects indicative of the documents belonging to

different ones of the time periods.

7. The relation chart-creating program according to claim 1, wherein assuming that patent documents are inputted as the plurality of documents, in extracting the feature elements, dates of application are extracted as the time information.

8. The relation chart-creating program according to claim 1, wherein assuming that patent documents are inputted as the plurality of documents, in extracting the feature elements, dates of application and priority dates are extracted as the time information, and

wherein when the objects indicative of the documents are laid out, if a date of application and a priority date have been extracted from a document, the priority date is regarded as the time information of the document.

9. A method of creating a relation chart representative of relations between a plurality of documents, comprising the steps of:

analyzing contents of each of the documents and extracting feature elements including time information therefrom;

calculating a degree of relevancy between each document pair extracted from the documents, based on the

extracted feature elements;

laying out objects indicative of the documents,
along a time axis, based on the time information, and
generating association lines for connecting between the
5 objects of each document pair, depending on the
calculated degree of relevancy; and

displaying the relation chart composed of the
objects and the association lines.

10 10. A relation chart-creating apparatus for
creating a relation chart representative of relations
between a plurality of documents, comprising:

feature element-extracting means for analyzing
contents of each of the documents and extracting feature
15 elements including time information;

relevancy-calculating means for calculating a
degree of relevancy between each document pair extracted
from the documents, based on the extracted feature
elements;

20 layout means for laying out objects indicative of
the documents, along a time axis, based on the time
information;

association line-generating means for generating
association lines for connecting between the objects of
25 each document pair, depending on the calculated degree
of relevancy; and

display means for displaying the relation chart

composed of the objects and the association lines.

11. A computer-readable recording medium that records a relation chart-creating program for creating a relation chart representative of relations between a plurality of documents, the program causing a computer to:

analyze contents of each of the documents and extract feature elements including time information therefrom;

calculate a degree of relevancy between each document pair extracted from the documents, based on the extracted feature elements;

lay out objects indicative of the documents, along a time axis, based on the time information, and generate association lines for connecting between the objects of each document pair, depending on the calculated degree of relevancy; and

display the relation chart composed of the objects and the association lines.